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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/281,710      | 03/30/1999  | HIDEYUKI OMURA       | 990204/LH           | 7553             |

1933 7590 09/12/2002

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| EXAMINER |
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| ART UNIT | PAPER NUMBER |
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2828

DATE MAILED: 09/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/281,710

Applicant(s)

HIDEYUKI OMURA ET AL.

Examiner

Cornelius H. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Acknowledgment*

1. Acknowledgment is made that applicant's Response, filed on 05 June 2002, has been considered.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Pan et al. (5,910,962). Pan et al. discloses an external cavity laser **Fig. 3B** comprising a fiber Bragg grating section **22A** formed of an optical fiber **31** having a Bragg wavelength of light reflected by a grating adjusted to a given wavelength **see col. 2, line 61-col. 3, line 8**; a laser light emitting device **30B** that generates light, and that is optically coupled to the fiber Bragg grating section **22A** to ensure input and output of the light, said laser

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light emitting device including a reflective surface for reflecting the generated light; a cavity that is formed between the laser light emitting device and the grating, and that resonates the light between the reflective surface of the laser light emitting device and the grating, thereby oscillating a laser beam having a given oscillation wavelength; a connector **38** that outputs the light oscillated by the cavity, said connector **38** being the first connector **38** provided on an optical path extending from the laser emitting device **30B**; intercepting means **35** for intercepting reflected waves from the connector **38**; wherein the fiber Bragg grating section **22A** is located on the optical path between the laser light emitting device **30B** and the connector **38** and the intercepting means **35** is located on the optical path between the fiber Bragg grating section **22A** and the connector **38**, **see col. 4, lines 25-52 and col. 5, lines 8-20**.

Regarding claim 4, Pan et al. disclose that the intercepting means comprises an isolator, **see col. 4, lines 47-48**.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pan et al. (5,910,962). Pan et al., as applied to claims 1 and 4 above, teach all the stated limitations except for the intercepting means comprising a circulator or (super-/angled-)physical connector, instead Pan et al. teach the intercepting means comprises an

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isolator. It would have been an obvious matter of design choice to any intercepting means, since applicant has not disclosed that circulator or (super-/angled-)physical connector solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with an isolator.

In regard to claims 9-10, Pan et al. teach that the relative intensity noise is low, **see col. 5, lines 40-54**. It has been held that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1 and 4-10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pan et al. (5,892,781) **Figs. 1A-B, col. 3, line 24-col. 5, line 30** disclose a similar device because it would have been obvious to one having ordinary skill in the art at the time the invention was made to separate the coupling and isolator elements of WDM coupler/isolator **14**, since it has been held that constructing a formerly integral structure in various elements (or formerly separate elements into one) involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Hamakawa et al. (5,993,073) teach an external cavity laser.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (703)306-5981. The examiner can normally be reached on 8:30 - 4:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dzierzynski can be reached on (703)308-4782. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7722 for regular communications and (703)308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



chj

August 29, 2002



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